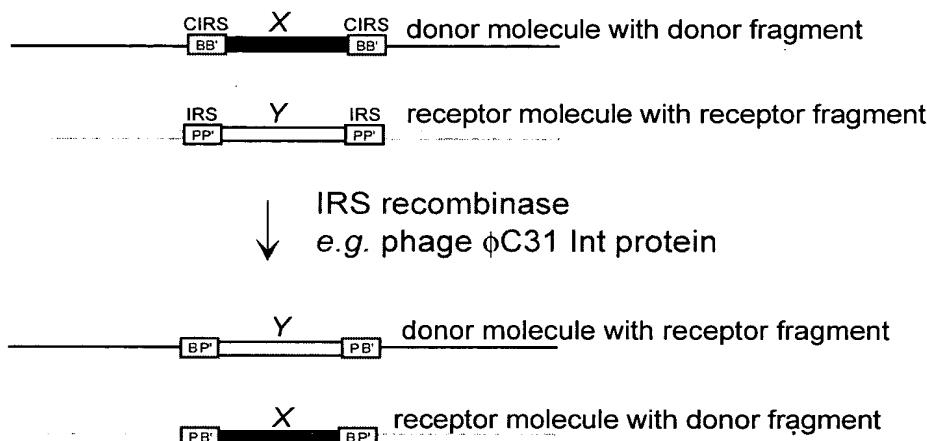
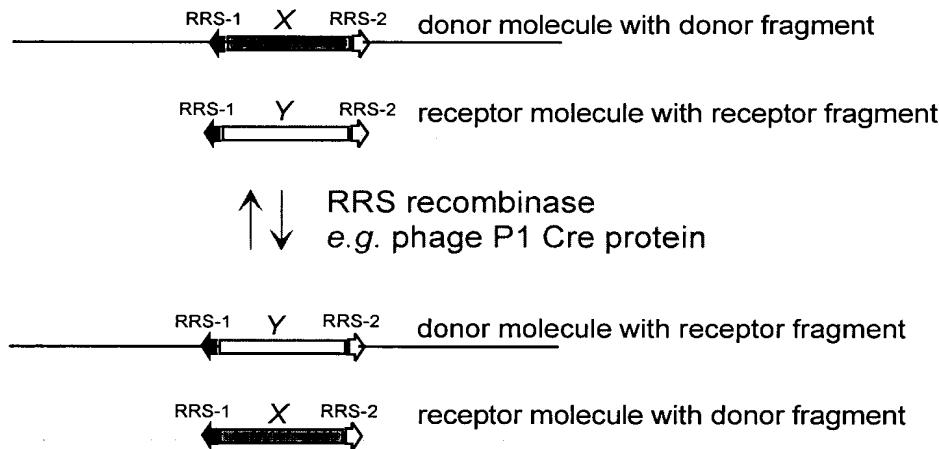


Figure 1

A



B



$[PP']$	= <i>attP</i>
$[BB']$	= <i>attB</i>
$[PB']$	= <i>attR</i>
$[BP']$	= <i>attL</i>
←	= <i>loxP</i>
→	= <i>lox511</i>

Figure 2

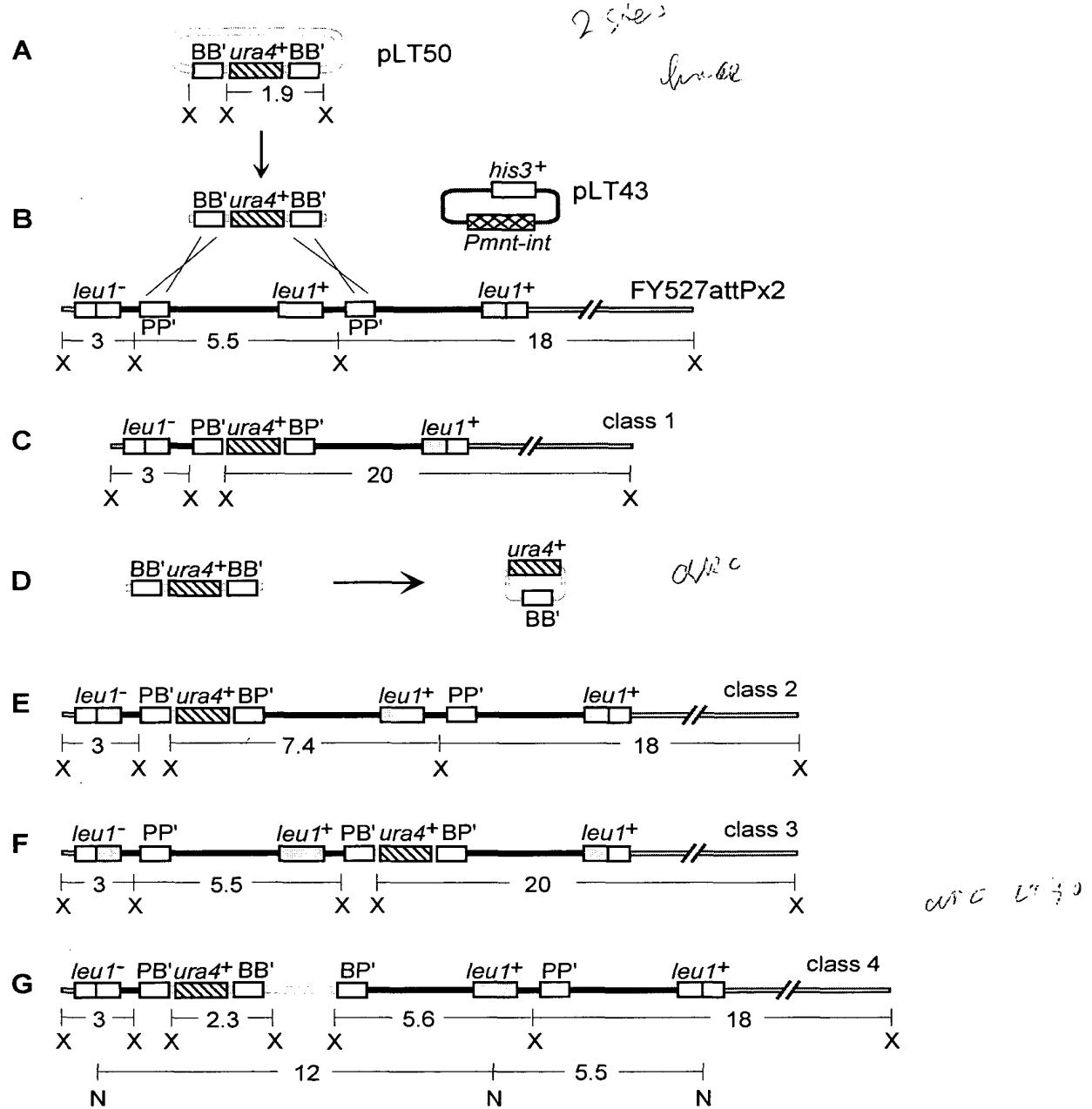
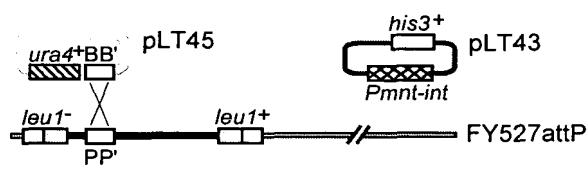
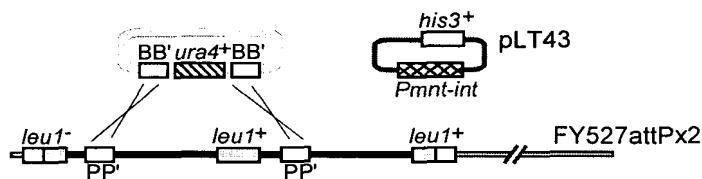


Figure 3

A



B



C

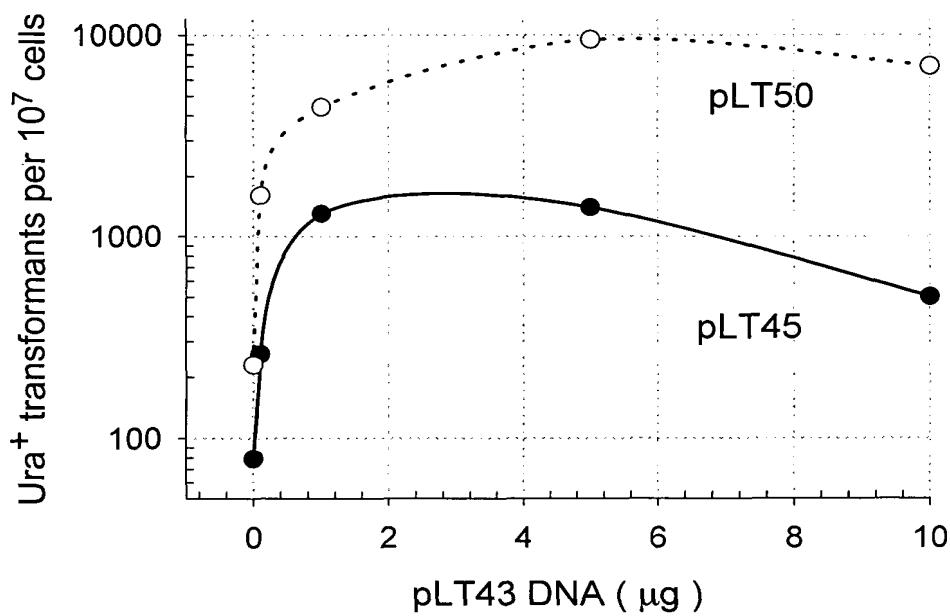


Figure 4

cDNA integration in mammalian cells
transient expression of *int*

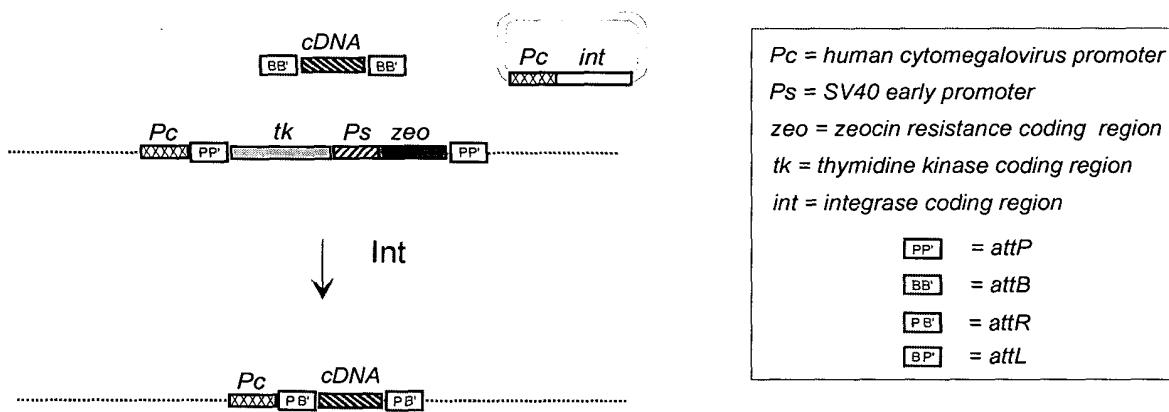
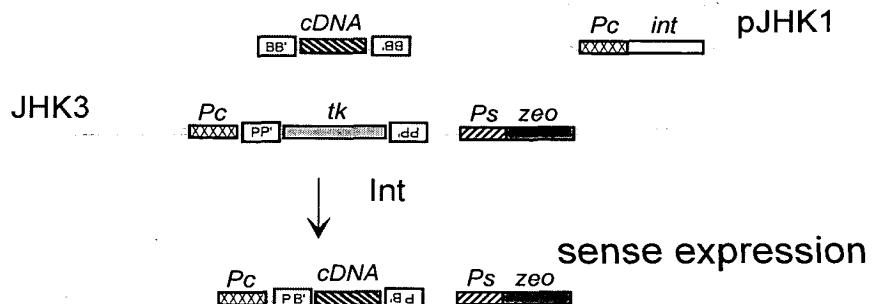


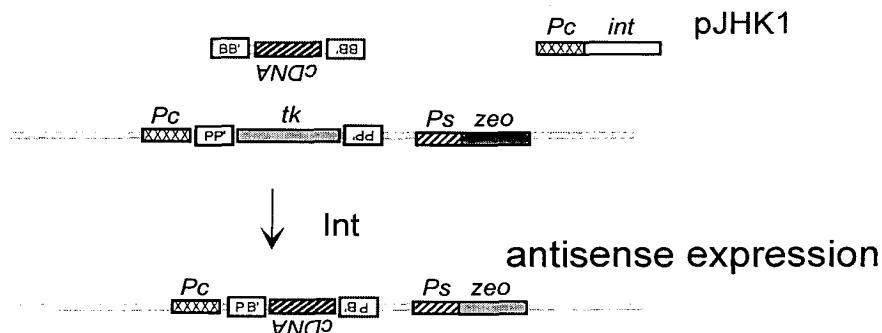
Figure 5, part I

Strategy for cDNA integration in mammalian cells

A



B



C



D

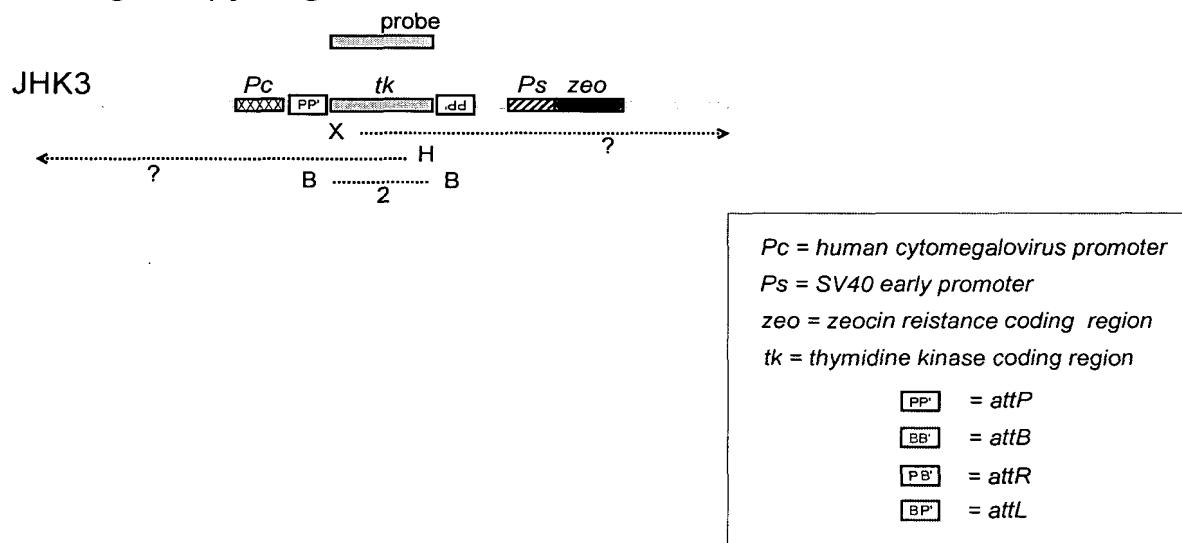


Pc = human cytomegalovirus promoter
Ps = SV40 early promoter
zeo = zeocin resistance coding region
tk = thymidine kinase coding region

- | | |
|-------|--------|
| [PP] | = attP |
| [BB'] | = attB |
| [PB'] | = attR |
| [BP'] | = attL |

Figure 5, part II

E Single copy target construct in human cells



F PCR detection of DNA exchange

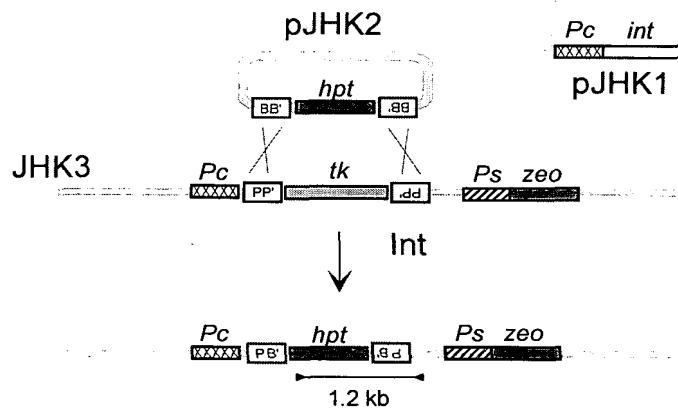
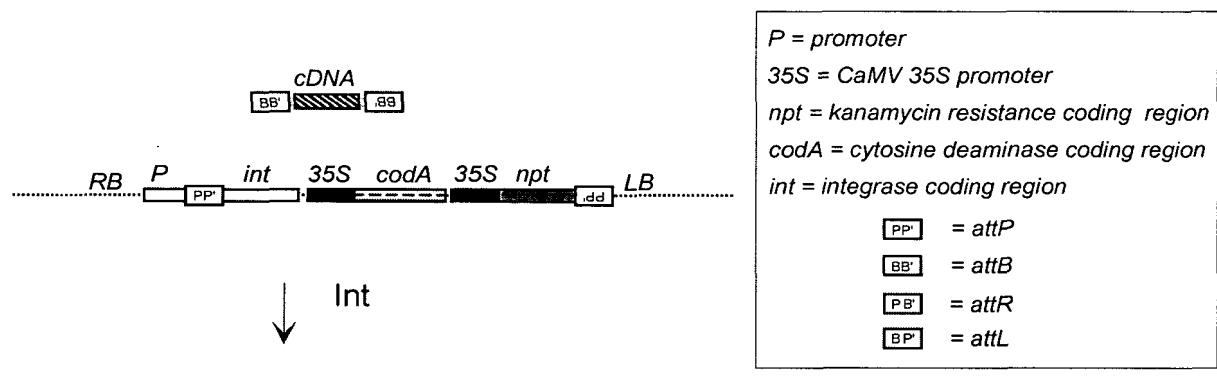


Figure 6

cDNA integration in plant cells
int expressed from target site

A



B

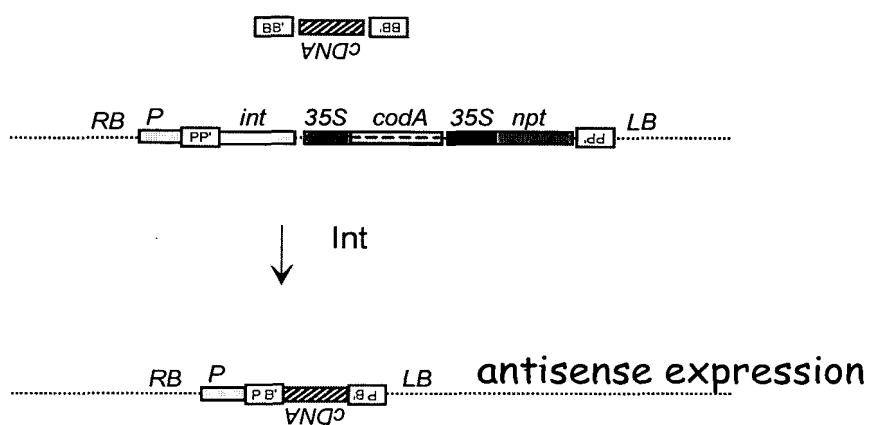


Figure 7

General strategy to incorporate only the trait gene

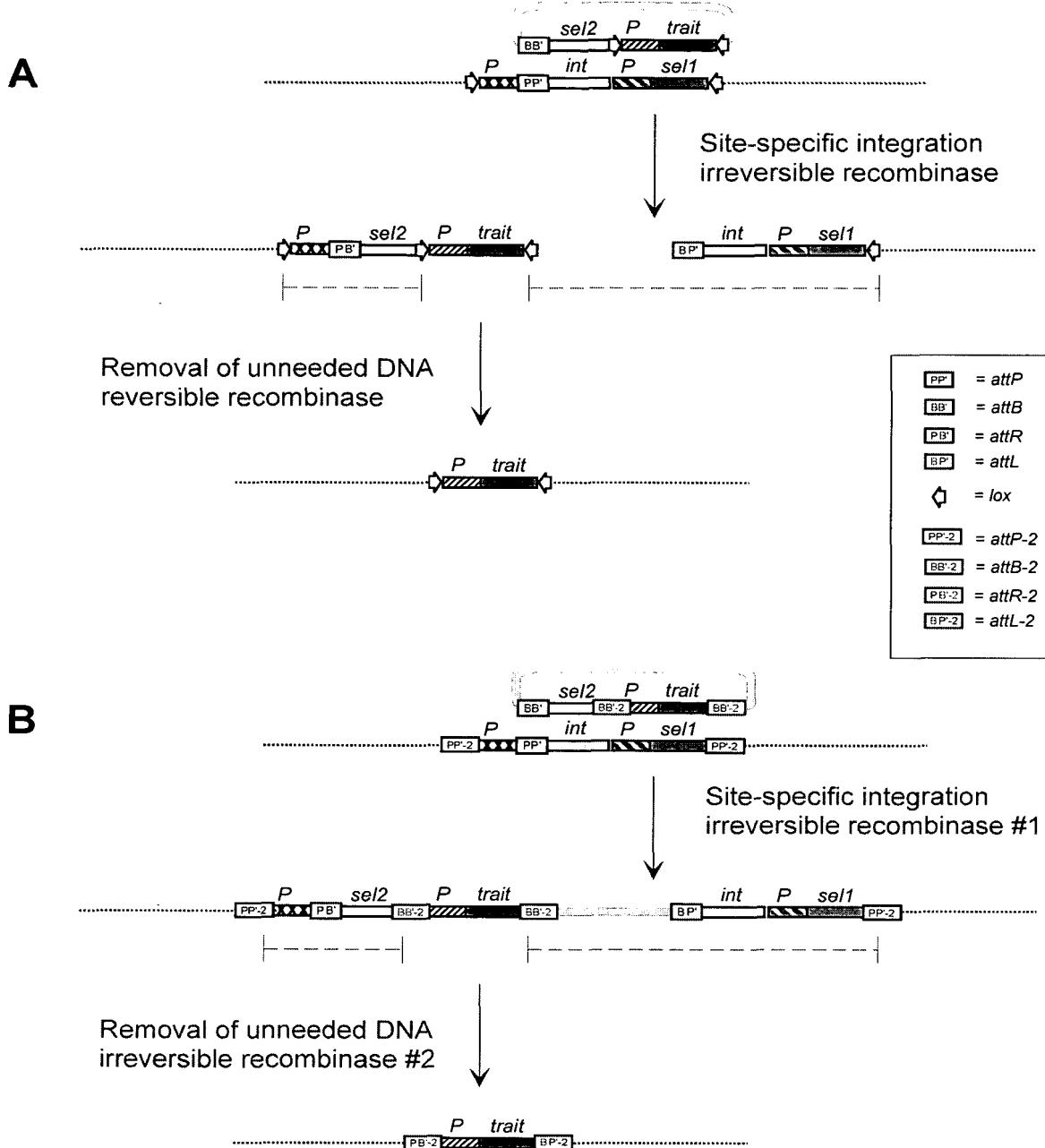
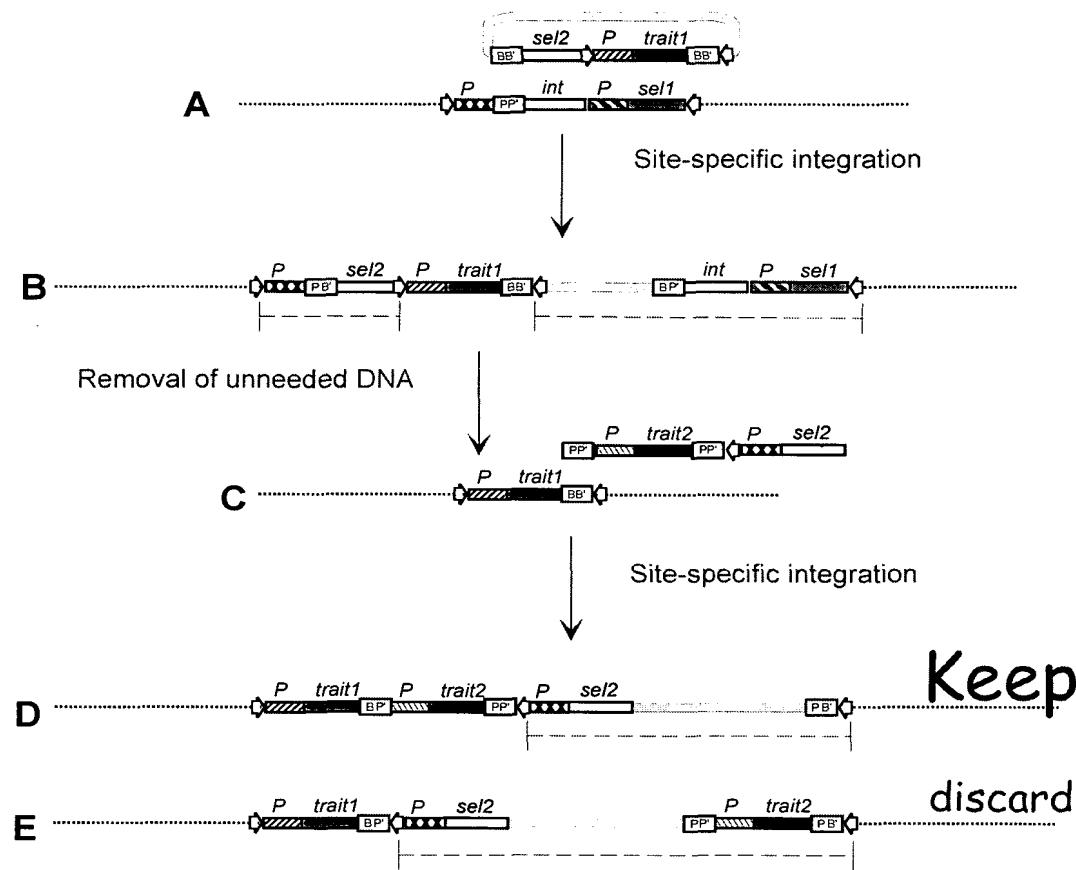


Figure 8, part I

General strategy to stack genes, part1

Use of directly oriented sites



[PP]	= attP
[BB]	= attB
[PB']	= attR
[BP]	= attL
◇	= lox

General strategy to stack genes, part2
Use of directly oriented sites

Figure 8, part II

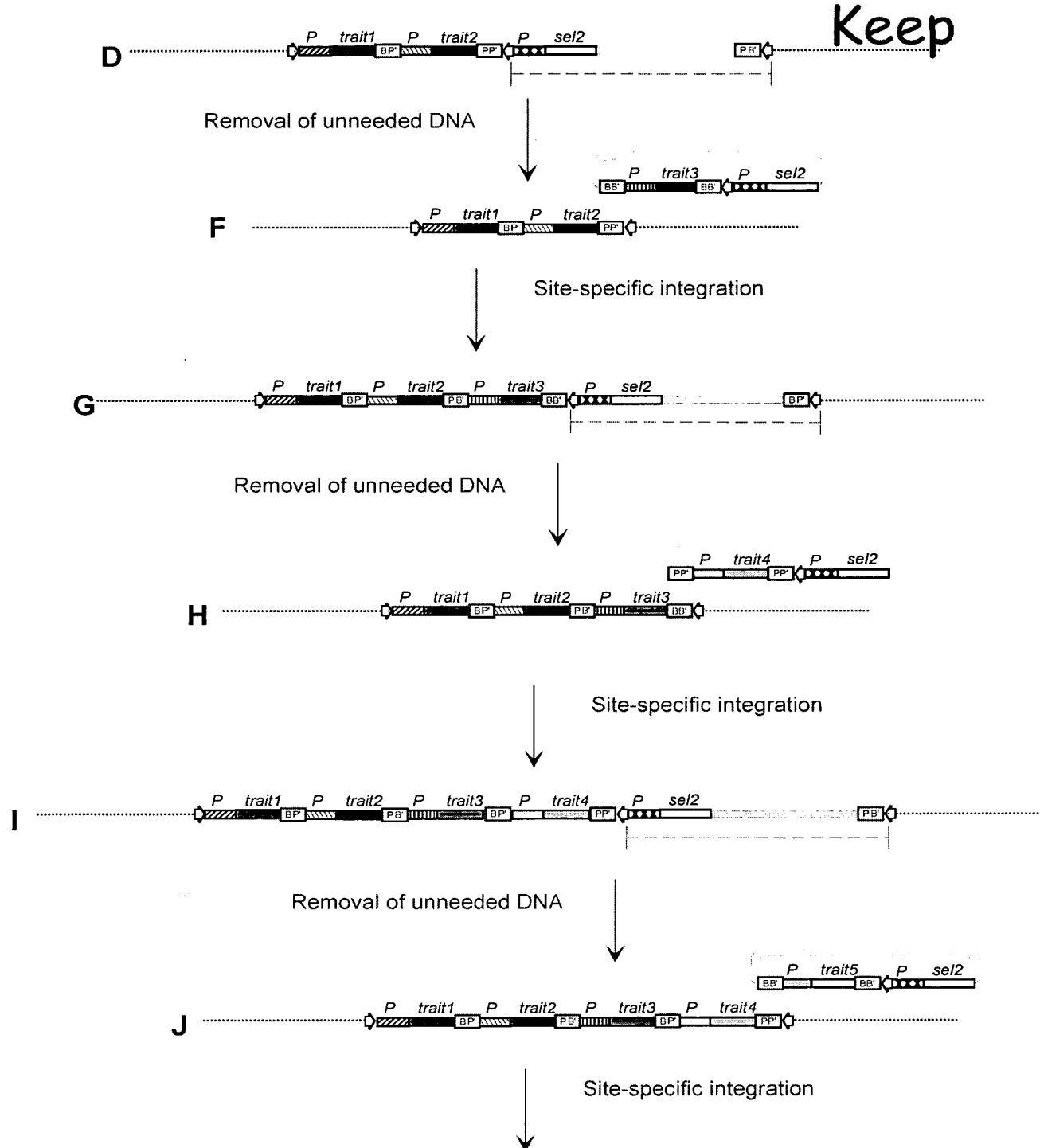
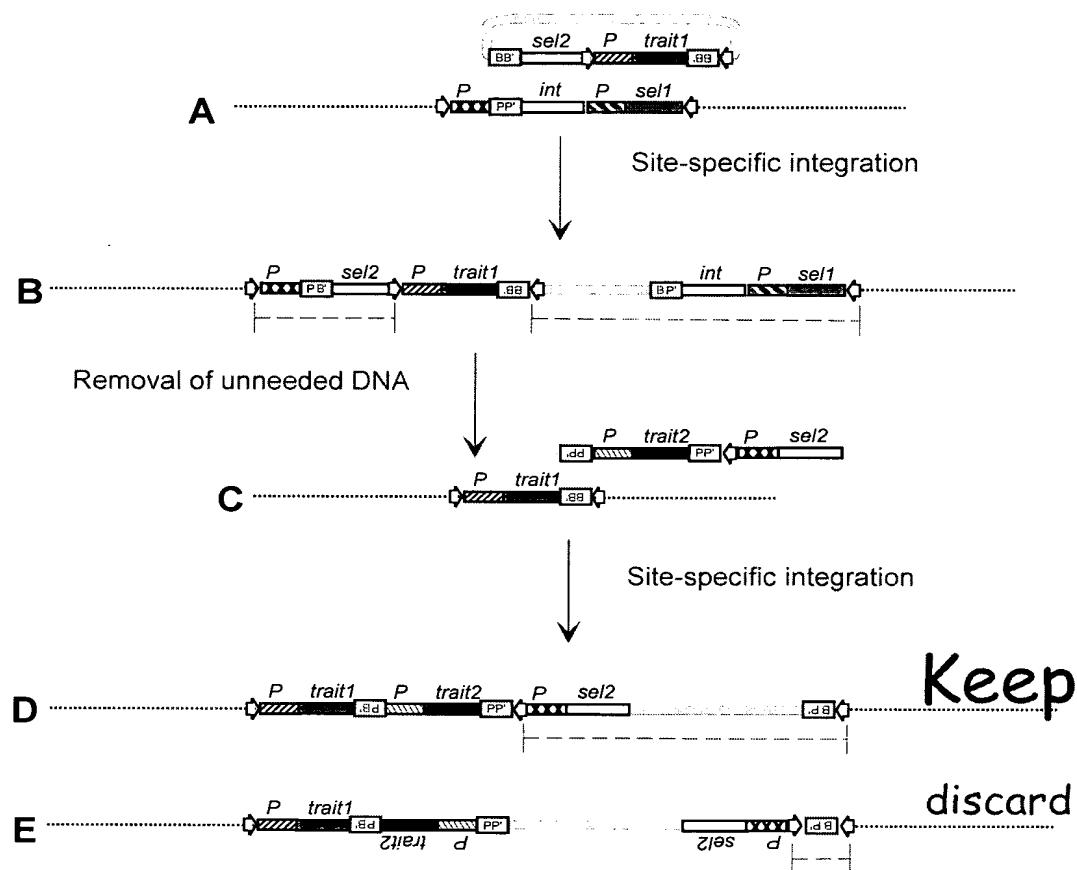


Figure 9, part I

General strategy to stack genes, part1

Use of inverted sites



[PP]	= attP
[BB]	= attB
[PB]	= attR
[BP]	= attL
◊	= lox

Figure 9, part II

General strategy to stack genes, part 2

Use of inverted sites

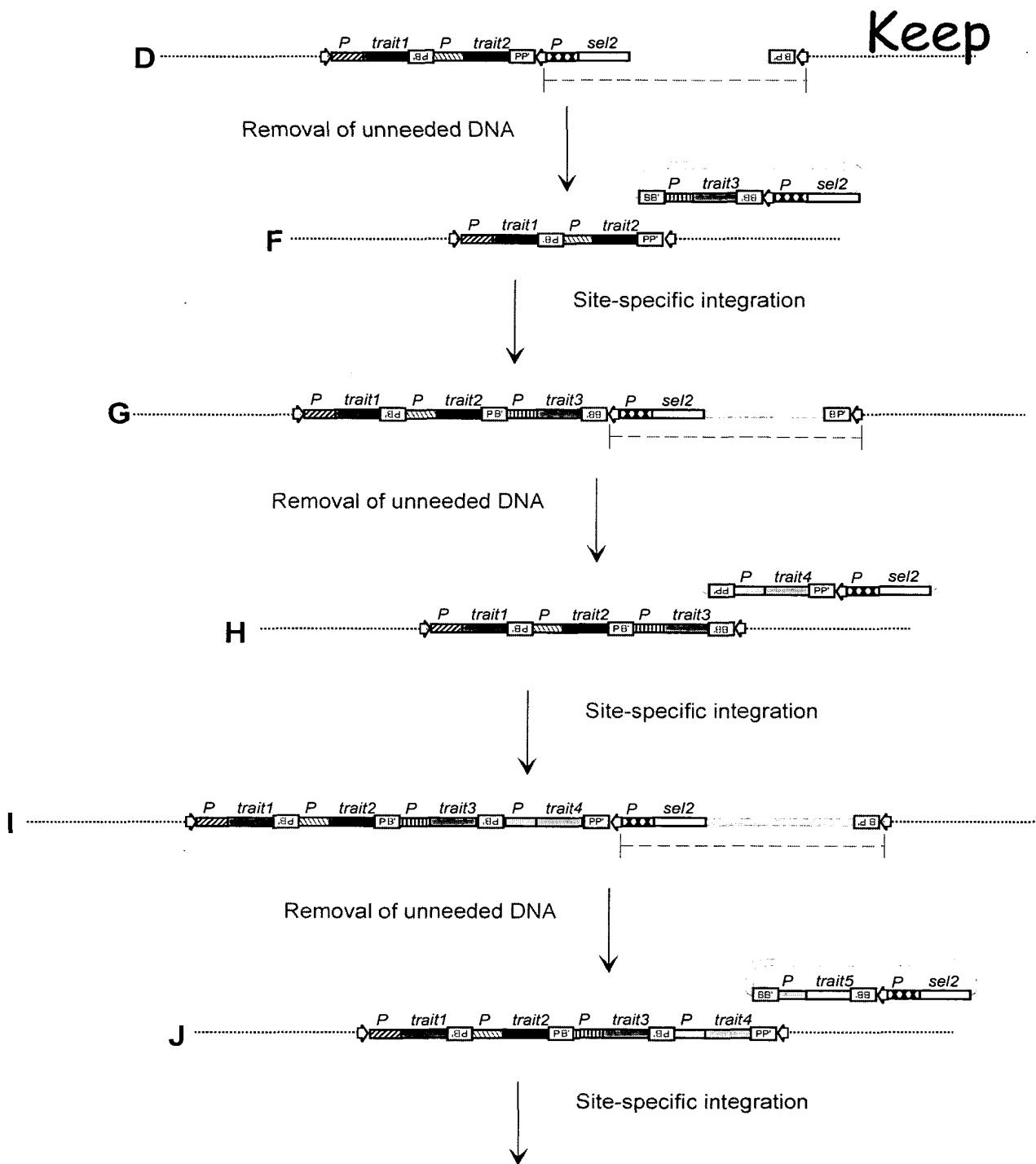


Figure 10

Gene replacement in the host genome with directly oriented dual sites

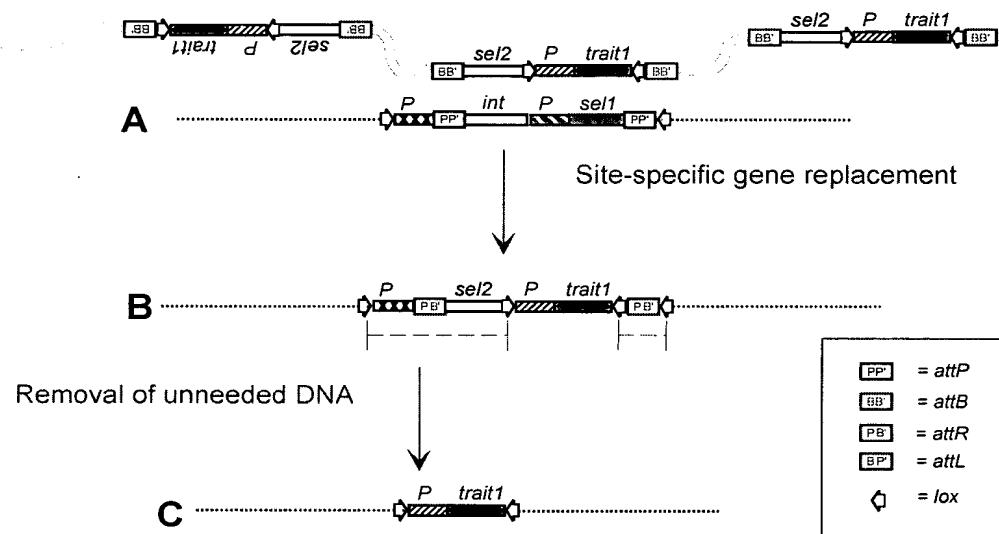


Figure 11

Gene replacement in the host genome with inverted dual sites

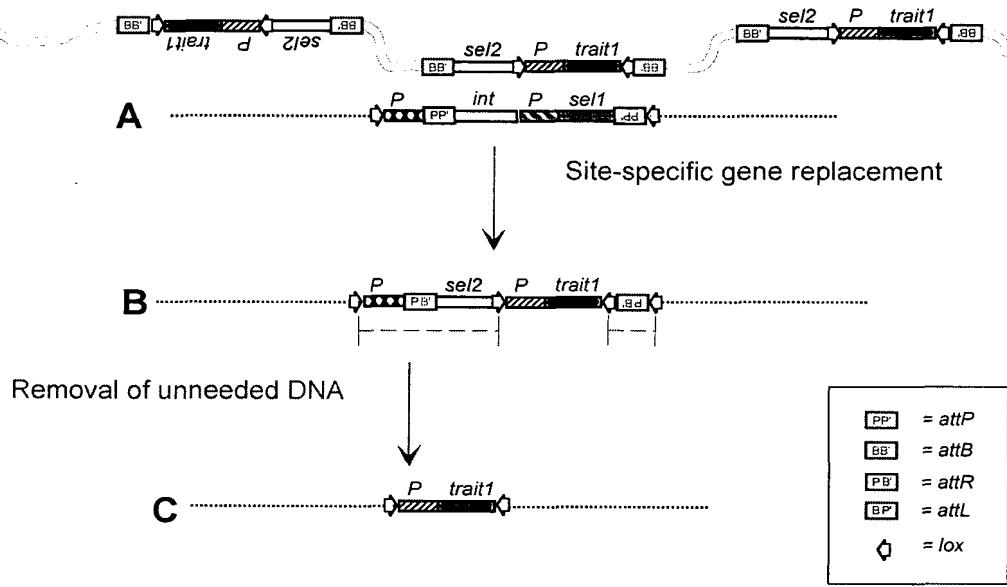


Figure 12

Transgene translocation from one chromosome to another

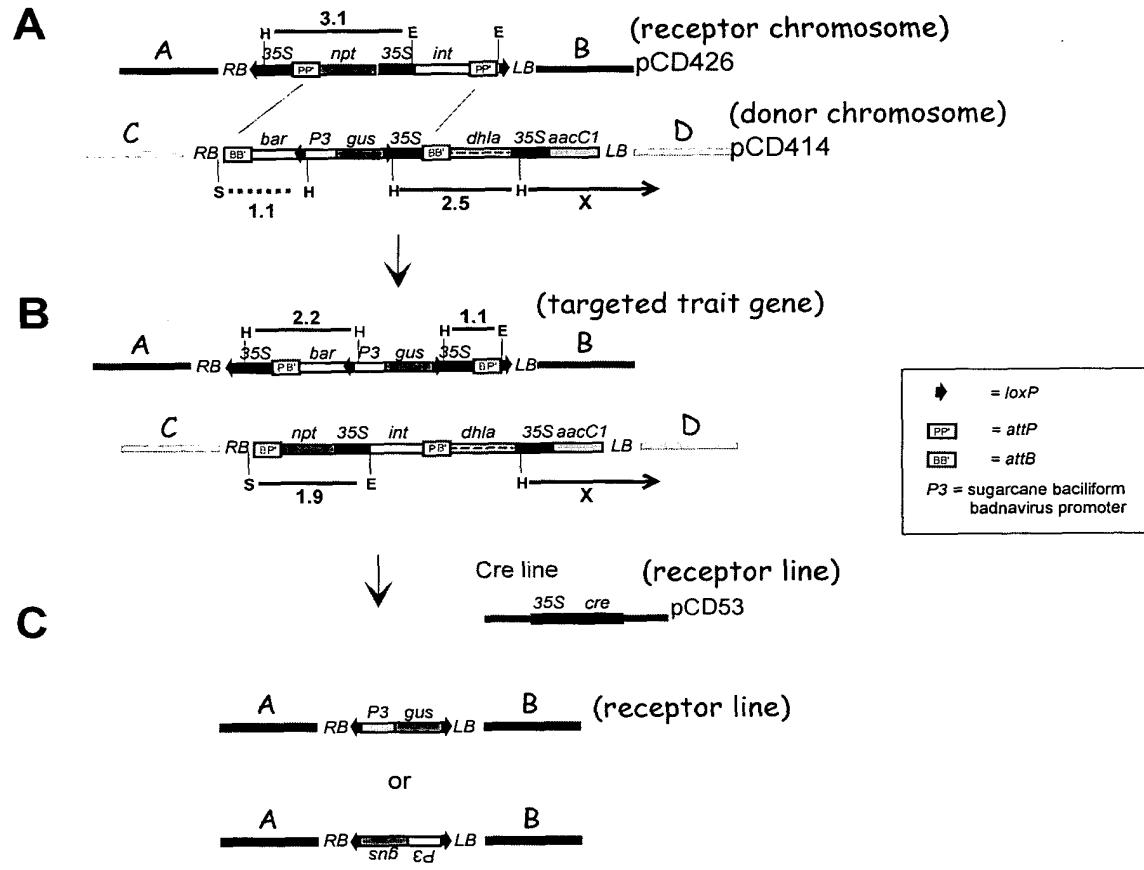
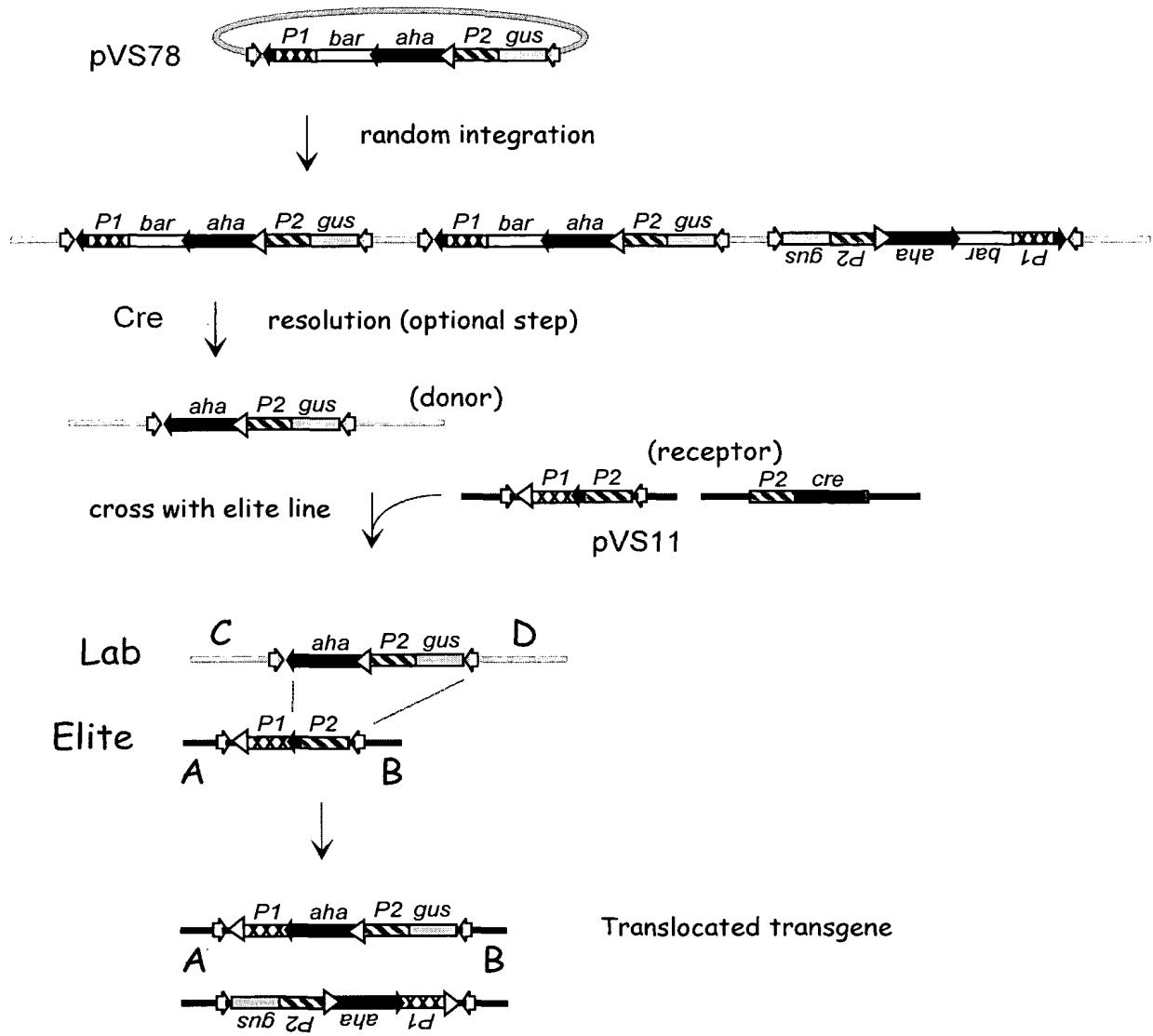


Figure 13

Transgene translocation using reversible recombination systems



<i>P1</i> = Rice Actin promoter
<i>P2</i> = Maize Ubiquitin promoter
\blacktriangleleft = <i>FRT</i>
\blacktriangleright = <i>loxP</i>
\blacktriangleleft = <i>lox511</i>